ABSTRACT OF THE DISCLOSURE

A digital signal processing apparatus has an A/D converter, a digital filter, and an anti-aliasing circuit. The digital filter attenuates a frequency component within a preventing area by performing half-band processing to sampling data of a digital output which is outputted by the A/D converter. The anti-aliasing circuit measures a period of a sign signal which is outputted by the digital filter and, when the period of the sign signal is smaller than a threshold, the anti-aliasing circuit subjects the output of the digital filter to shit operation in an LSB direction by the number of bits and outputs the processed signal. Thus, the sign signal outputted by the digital filter, which is subjected to the half-band processing, is used to realize a simple circuit for suppressing or removing aliasing noise caused by the half-band processing, with low costs.